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OPNAV INSTRUCTION 4710.31A

From: Chief of Naval Operations

Subj: TRIDENT PLANNED EQUIPMENT REPLACEMENT PROGRAM

Ref: (a) OPNAVINST 4000.57G

Encl: (1) TRIPER Program Policies and Functional
Responsibilities

1. Purpose. To define concepts, policies, procedures, and responsibilities in support of the Trident Planned Equipment Replacement (TRIPER) Program.

2. Cancellation. OPNAVINST 4710.31.

3. Scope. This instruction prescribes the functions and responsibilities of TRIPER Program participants and applies to the Commander, Naval Sea Systems Command (COMNAVSEASYS COM); Executive Director, Submarine Maintenance Engineering, Planning and Procurement (SUBMEPP) Activity; Commander, Naval Supply Systems Command Weapons Support Systems (NAVSUP WSS); submarine force commanders; Strategic Systems Program (SSP); and all system acquisition program managers whose equipment affects Trident configurations. The TRIPER Program has no precedent within submarine logistics and shall not be subject to lower level directives which do not address planned equipment replacement concepts. Excluded from the TRIPER Program is equipment under the cognizance of the Director, SSP and the Naval Sea Systems Command (NAVSEASYS COM) Deputy Commander, Nuclear Propulsion Directorate (SEA 08).

4. Background. The Trident submarine was designed to have a 50 percent increase in missile availability and a 20 percent increase in operational availability over previous fleet ballistic-missile nuclear submarines (SSBN). The TRIPER Program was developed to attain these increased availability requirements. Shipboard equipment such as hull, mechanical and

electrical, and combat control systems requiring maintenance beyond the capability of ship's force and which likely cannot be accomplished during refit periods without unacceptable impact on other refit requirements are included in the program. TRIPER assets are removed and replaced on either a planned or condition-based requirements, thus accomplishing an incremental overhaul. TRIPER assets are controlled and issued to assure their sole dedication to support of United States Ship (USS) Ohio (SSBN and guided-missile nuclear submarine (SSGN) 726) class submarines by conducting TRIPER asset changeouts during incremental refits for SSBNs and major maintenance periods (MMP) for SSGNs.

5. Program Objectives. The objectives of the TRIPER Program are to:

a. Per reference (a), support the incremental overhaul of the ship to ensure a high state of material readiness during the extended operational period between Chief of Naval Operations (CNO) depot level availabilities and to minimize the size of the availability work package and overall duration.

b. Maximize work accomplished during scheduled refits and MMPs by allowing quick equipment replacement, with minimum manpower expended, to permit integrated system testing prior to return to sea.

c. Replace equipment just prior to failure to maximize its operational availability and avoid disruptions and potentially excessive damage caused by run-to-failure.

d. Shift the burden of TRIPER equipment refurbishment from the refit period to other time periods independent of the refits and MMPs.

e. Minimize planned and corrective maintenance actions at the operational level.

6. Action. To accomplish the objectives listed above, TRIPER Program activities shall perform the functions outlined in enclosure (1).

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7. Records Management. Records created as a result of this instruction, regardless of media or format, shall be managed per Secretary of the Navy Manual 5210.1 of January 2012.

A handwritten signature in dark ink, appearing to read 'B. L. Bruner', with a stylized, flowing script.

B. L. BRUNER
Rear Admiral, U.S. Navy
Director, Submarine Warfare

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TRIPER PROGRAM POLICIES AND FUNCTIONAL RESPONSIBILITIES

1. Program Management. The TRIPER Program will be managed by an inter-systems command management team composed of the following key members:

a. NAVSEASYSCOM Program Manager, In-Service Submarines (PMS392) shall direct the TRIPER Program within the policy and guidance of this instruction, exercise high level authority and responsibility over all aspects of TRIPER Program operation and its assets, and interface with cognizant commands and higher authority on major policy matters. NAVSEASYSCOM PMS392 is designated as the technical manager and shall:

(1) Monitor TRIPER assets and recommend change-out schedules for TRIPER components subject to condition based maintenance.

(2) Review maintenance plans and procedures regarding strategic weapon support system (SWSS) and attack weapon support system (AWSS) TRIPER components.

b. SUBMEPP shall coordinate all day to day program management and technical management functions of the TRIPER Program. SUBMEPP's technical management role includes procurement specifications, refurbishment instructions, designated overhaul point (DOP) validations and assessments, maintenance standards, and maintenance plans.

c. NAVSUP WSS, the designated inventory manager, shall coordinate all inventory management aspects of the TRIPER Program in support of NAVSEASYSCOM PMS392 program direction. These include maintenance of a stock level computation model, budgeting, TRIPER asset procurement, inventory control and distribution, etc. The inventory manager shall maintain a management plan per program direction.

d. Type commanders (TYCOM) are designated to coordinate TRIPER asset change-outs, refurbishments, and storage. The TYCOMs have designated site managers to maintain a management plan per program direction established by NAVSEASYSCOM PMS392. The designated site managers are Trident Refit Facility (TRF), Kings Bay, GA, for Commander, Submarine Force, U.S. Atlantic

Fleet; and Puget Sound Naval Shipyard and Intermediate Maintenance Facility (PSNS&IMF), Bangor, WA, for Commander, Submarine Force, U.S. Pacific Fleet.

e. System acquisition managers (program executive officers, etc.) shall provide technical assistance to NAVSEASYS COM PMS392 and SUBMEPP for cognizant items. Directives and management plans shall be jointly developed and concurred by the principal TRIPER support commands.

2. TRIPER Selection Criteria. For an item to qualify for the TRIPER Program, off-hull equipment planned maintenance (as contained in the class maintenance plan (CMP)) that is beyond the capability of the organizational level must be required during the operational interval (i.e., the period between CNO depot level availabilities). In addition, one of the following criteria must be met:

a. Equipment refurbishment time exceeds the refit duration. Refurbishment time shall include the time required to accomplish all events commencing with the start of interference and equipment removal and ending with the completion of interference reinstallation and shipboard testing. For non-TRF and PSNS&IMF DOPs, this time shall include an allowance for shipping and receipt inspections.

b. Equipment refurbishment time, although less than the refit duration, adversely impacts the parent system maintenance, grooming, and testing (i.e., the refit and MMP duration criteria is reduced by the time required for planned maintenance, grooming, and testing in support of the parent system).

c. Equipment refurbishment time, although less than the refit duration, adversely impacts maintenance, grooming, and testing of other ship systems (i.e., the refit duration criteria is reduced by the time required for planned maintenance on grooming and testing in support of other system(s)).

d. The aggregate requirement for TRF and PSNS&IMF shop resources (personnel or shop equipment) needed to complete refits and MMPs on schedule is excessive.

3. Additions and Deletions. SUBMEPP shall approve, after coordination with COMNAVSEASYS COM and other program participants, all additions or deletions to the program. Logistic support and pool assets shall be added within 3 years of approval into the program. New TRIPER assets added to the program shall be listed in an interim status until all elements of logistics support are in place.

4. Program Monitoring. TRIPER component material condition feedback previously collected by the material condition assessment program is used to optimize component replacement periodicities. The USS Ohio class CMP relies heavily on planned equipment replacement and refurbishment via the TRIPER Program to accomplish the incremental overhaul of USS Ohio class submarines (SSBNs and SSGNs). Because equipment maintenance requirements, replacement, and restoration periodicities are initially based on past experience and engineering judgment, there is a need to obtain feedback on material condition and optimize those maintenance requirements and periodicities based on that feedback. The following responsibilities are assigned:

a. SUBMEPP shall include material condition feedback forms in all maintenance standards. SUBMEPP shall incorporate feedback received from DOPs into the integrated maintenance analysis profile. SUBMEPP shall utilize the reliability centered maintenance process to optimize maintenance plans and engineered component periodicities using this feedback and other reporting sources.

b. TYCOMs shall provide maintenance and operational feedback data.

5. Inventory Management

a. Inventory Control. Ready for issue (RFI), pre-tested assets shall be provided to support all planned or emergent change-out requirements. A TRIPER stock level computation model shall be used to calculate and forecast pool requirements at both TRF and PSNS&IMF. This model shall incorporate a mathematical analysis of the following factors as a minimum: ship and shipboard component population, maintenance plan engineered periodicity, repair turnaround time (RTAT), procurement lead time, recoverability rate, and a safety level

that reflects the variability of key parameters. Assets shall be centrally managed using a single pool concept in which assets shall be assigned, stored and maintained by both TRF and PSNS&IMF. TRIPER inventory assets shall be controlled and issued solely for the use of USS Ohio class submarines. Cognizance symbol "4Y" is assigned to all TRIPER assets. Positive inventory control shall be maintained at all times over every TRIPER assets. This shall include the tracking of each item on a real time basis, by serial number whether installed aboard ship, in storage, or undergoing refurbishment. The following responsibilities are assigned:

(1) NAVSEASYS COM PMS392 shall fund TRIPER item acquisitions, including preparing and presenting TRIPER procurement budgets.

(2) NAVSUP WSS shall:

(a) Determine stock levels and budget requirements for TRIPER assets, procure TRIPER assets, distribute and account for inventory and disposition TRIPER assets.

(b) Assist NAVSEASYS COM PMS392 in matters of financial management.

(c) Assist SUBMEPP in matters of levels determination and TRIPER asset inventory control.

(d) Maintain packing, handling, storage, and transportation procedures and responsibilities.

(e) Assign and monitor stock levels at both TRF and PSNS&IMF to meet planned and emergent requirements.

(f) Contract for commercial DOP refurbishment of certain TRIPER assets.

(3) SUBMEPP shall:

(a) Validate technical parameters in the TRIPER stock level computation model.

(b) Approve, with NAVSEASYS COM PMS392 and TYCOM concurrence, release of TRIPER assets for non-USS Ohio class use.

(4) TYCOMs will:

(a) Conduct TRIPER workload forecasts, oversee change-out planning, execution, refurbishment, testing, and return to an RFI status of designated TRIPER assets.

(b) Provide concurrence to SUBMEPP for approval and release of TRIPER assets for non-USS Ohio class submarine use.

(c) Maintain prescribed stock levels through NAVSUP WSS input.

b. Interchangeability. Standardization of those pieces of equipment designated as TRIPER assets is highly preferred, but not mandatory. However, equipment interchangeability is mandatory. Those standards and constraints imposed by ship design and construction contracts on TRIPER assets installed during submarine construction (e.g., non-deviation aspects of fastener, mechanical joint and other interface locations, quick disconnect, disassembly features, handling attachments, etc.) will be similarly required for equipment purchased for TRIPER asset stock. Technical documentation to ensure the above will be developed and maintained. This is necessary to ensure that equipment interchangeability and the applicability of procedural documentation developed for TRIPER program operation will be fully realized and that the degree of equipment standardization attained via new construction design and shipbuilding specifications is not degraded or compromised. The following responsibilities are assigned:

(1) SUBMEPP shall prepare and provide procurement specifications for the majority of TRIPER assets which ensure interchangeability of new TRIPER assets procured for the program. SUBMEPP shall provide technical review and concurrence on technical data packages (TDP) for Level 1 (L1), submarine safety, scope of certification, and Q3 TRIPER assets.

(2) NAVSUP WSS shall utilize SUBMEPP prepared procurement specifications or SUBMEPP reviewed TDPs in contracts for new TRIPER assets.

6. Changeout and Refurbishment Management

a. Changeout Management. TRIPER change-outs shall occur at intervals that do not exceed their engineered periodicity or their condition indicates failure may be imminent as specified in the CMP, unless prior approval is obtained. The following responsibilities are assigned to the TYCOMs:

(1) Maintain procedures for developing, maintaining and executing change-out schedules.

(2) Maintain procedures for approving deferrals beyond engineered periodicity and unplanned change-outs.

(3) Maintain procedures related to the removal, installation, handling, storage, and testing of TRIPER assets.

b. Refurbishment Technical Management. Refurbishments shall be accomplished in strict compliance with maintenance standards and or refurbishment instructions at approved DOPs. For items not refurbished at TRF and PSNS&IMF, alternate DOPs shall be assigned to promote cost effectiveness and or minimize the risk associated with work stoppages. The following responsibilities are assigned:

(1) NAVSEASYS COM PMS392 should assist TYCOMs in the budget development for refurbishment requirements.

(2) SUBMEPP shall:

(a) Assign and certify DOPs for all TRIPER assets.

(b) Provide maintenance standards and or refurbishment instruction for each TRIPER assets as needed.

(c) Review post refurbishment test data from non-TRF and PSNS&IMF DOPs to ensure all technical and interchangeability requirements have been met prior to TRIPER assets being placed in RFI condition.

(3) NAVSUP WSS shall:

(a) Provide material support for refurbishments by all DOPs.

(b) Administer refurbishments by non-TRF and PSNS&IMF DOPS.

(c) Assist NAVSEASYS COM PMS392 in defining refurbishment requirements in support of TYCOM budget development.

(4) System acquisition managers and SSP will:

(a) Assist in certifying DOPS for cognizant TRIPER assets as needed.

(b) Provide technical assistance for acquisition of refurbishment materials for cognizant TRIPER assets as needed.

(c) SSP shall review and provide comments on SWSS and AWSS maintenance plans and procedures.

(5) TYCOMs shall:

(a) Manage and fund all automatically inducted refurbishments, for both planned and emergent change-outs, and associated costs for assets utilized by their respective ships.

(b) Ensure adequate manning is maintained to accomplish program refurbishment requirements.

c. RTATs. To ensure maximum TRIPER asset availability and minimal pool size, most removed assets requiring refurbishment shall be automatically inducted into the refurbishment cycle and completed within their RTAT, unless directed otherwise. Whether removed on a scheduled or emergent basis, the RTAT count-off will start no later than the first day after completion of the refit in which the asset was removed. The established RTAT shall allow for timely refurbishment while causing minimal impacts to refit workload and TRIPER asset inventory levels. For TRIPER assets removed during CNO depot level availabilities, the RTAT will be adjusted to compensate for workload impacts. The following responsibilities are assigned:

(1) SUBMEPP will coordinate approval of RTATs.

(2) TYCOMs will ensure that TRIPER asset refurbishments are accomplished within RTATs.

(3) TYCOMs will coordinate with NAVSUP WSS to determine which TRIPER assets are not needed to be automatically inducted into refurbishment.

7. Configuration and Alteration Management. Changes to TRIPER asset configuration shall be implemented via approved alterations. Upon approval of the alterations, action shall be taken to initiate the development or revision of logistic technical data, shipboard handling procedures, detailed removal and installation procedures, pre- and post-installation test procedures, shipboard work standards, planned maintenance system, allowance parts lists, piece part and test equipment support. Actual equipment alteration shall not begin until the above support package is complete and shall be accomplished during the refurbishment cycle whenever possible. A configuration status accounting system shall be maintained to document the exact configuration of each TRIPER asset (i.e., alterations, waivers, deviations, departures from specification, alterations and improvements, and all other configuration related information).

a. NAVSEASYS COM PMS392 shall:

(1) Develop and issue equipment alterations and maintain a configuration status accounting system.

(2) Provide budgeting and funding for alterations.

b. TYCOMs shall ensure alterations on TRIPER assets are accomplished and reported to the configuration and logistics baseline status accounting system per the Trident system configuration management plan.